

REMARKS

Claims 1, 11 and 21 have been amended. Claims 1-26 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application.

§ 102 Rejections

Claims 1-26 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,052,468 to Hillhouse (hereafter "Hillhouse").

Before undertaking a discussion regarding the substance of the Office's rejections, the following discussion of Hillhouse is included in order to assist the Office in appreciating the patentable distinctions between these references and the claimed subject matter in this application.

The Hillhouse Reference

Hillhouse discloses systems and methods for improving portability of secure encryption key data files by *re-securing* key data files according to different security processes for mobility. Specifically, Hillhouse teaches a method of generating secure key databases that is portable to systems having different configurations. Hillhouse also teaches a *method of selecting a user authentication method from a plurality of user authorization methods for use in securing* a key data file. Finally, Hillhouse teaches a method of *securing* a key database with multiple security methods.

In accordance with Hillhouse's teachings, a key data file comprises a secured cryptographic key which can be secured again according to an authentication method selected from a plurality of available authentication

1 methods available to a user on a particular system. Additionally, the key can be
2 *re-secured* over and over again based on selected available authentication
3 methods. The key data is then accessible only via the authentication method(s)
4 used. Thus, the systems and methods in Hillhouse *control access to key data files*
5 *by securing a cryptographic key to that file.*

7 **Applicant's Disclosure**

8 Applicant's disclosure provides methods and arrangements for controlling
9 access to resources in a computing environment. These methods and
10 arrangements identify authentication mechanism(s) (and/or characteristics thereof)
11 used in verifying a user to subsequently operating security mechanisms. Thus,
12 additional control is provided by differentiating user requests based on this
13 *additional information*. For example, in a computer capable of supporting
14 multiple authentication mechanisms, at least one embodiment *generates an*
15 *operating system representation* of at least one identity indicator associated with
16 at least one authentication mechanism, and subsequently *controls access* (to at
17 least one resource) *based on the operating system representation*. In certain
18 implementations, at least one security identifier that identifies the authentication
19 mechanism in some way can be generated. In other implementations, the
20 operating system representation is compared to at least one access control list
21 (with at least one access control entry). Here, for example, the access control
22 entry may specify whether the user authenticated (by the authentication
23 mechanism) is permitted access to the resource.

Claims Rejected over Hillhouse under § 102

Claim 1 has been amended, and as amended recites a method for use in a computer capable of supporting multiple authentication mechanisms comprising [added language appears in the bold italics]:

- generating at least one indicator associated with and identifying at least one authentication mechanism *that has been used to authenticate a user*; and
- controlling access to at least one resource based on the indicator.

In making the rejection, the Office argues that Hillhouse discloses generating at least one indicator associated with and identifying at least one authentication mechanism (citing column 8, lines 27-43) and controlling access to at least one resource based on the indicator (citing column 5, lines 32-38).

In order to clarify the claimed subject matter, this claim has been amended to clarify that the claimed indicator is associated with and identifies at least one authentication mechanism *that has been used to authenticate a user*. In light of the current amendments, Applicant respectfully traverses the Office's rejections and submits that the excerpt cited by the Office (column 8) merely discusses a method in which code two bytes in length *indicates the type of authentication method* (i.e., fingerprint, password, etc.) that must be used in order to gain access to a key file comprising a cryptographic key. The indicator does not indicate that the user has been authenticated. The excerpt from column 8 is reproduced below:

According to one embodiment the data indicative of a user authorisation method comprises a sequence of bytes including a length for indicating, one of the data length and the number of authentication methods employed to secure the key data *and an indicator of a user authentication method comprising a number, for example 2 bytes, unique to each available*

1 *method.* Typically two bytes are used to identify the method selected
2 thereby allowing for over 65,000 different user authentication methods.
3 *This permits the implementation of variations on user authentication*
4 *methods to increase the difficulty of breaking the security of the key data.*

5 Hillhouse does not disclose or suggest a method in which access to at least
6 one resource is controlled based on an indicator that is associated with and
7 identifies at least one authentication mechanism that has been used to authenticate
8 a user. The excerpt cited by the Office neither discloses nor suggests any such
9 subject matter. Accordingly, for at least this reason, this claim is allowable.

10 **Claims 2-10** depend from claim 1 and are allowable as depending from an
11 allowable base claim. These claims are also allowable for their own recited
12 features which, in combination with those recited in claim 1, are neither shown nor
13 suggested by the reference of record.

14 **Claim 11** has been amended, and as amended recites a computer-readable
15 medium for use in a device capable of supporting multiple authentication
16 mechanisms, the computer-readable medium having computer-executable
17 instructions for performing acts comprising [added language appears in the bold
18 italics]:

- 19 • producing at least one indicator that uniquely identifies at least one
20 authentication mechanism supported by the device *that has been*
21 *used to authenticate a user;* and
- 22 • causing the device to selectively control access to at least one
23 resource operatively coupled to the device based at least in part on
24 the indicator.

25 In making the rejection, the Office argues that Hillhouse discloses
generating at least one indicator associated with and identifying at least one

1 authentication mechanism (citing column 8, lines 27-43) and controlling access to
2 at least one resource based on the indicator. (citing column 5, lines 32-38).
3 Applicant respectfully disagrees and submits that, as discussed above and in light
4 of the current amendments, the excerpt cited by the Office (column 8) does not
5 disclose or suggest controlling access to at least one resource operatively coupled
6 to a device based at least in part on a indicator that uniquely identifies at least one
7 authentication mechanism supported by the device *that has been used to*
8 *authenticate a user.*

9 The excerpt cited by the Office neither discloses nor suggests any such
10 subject matter. Accordingly, for at least this reason, this claim is allowable.

11 Claims 12-20 depend from claim 11 and are allowable as depending from
12 an allowable base claim. These claims are also allowable for their own recited
13 features which, in combination with those recited in claim 11, are neither shown
14 nor suggested by the reference of record.

15 Claim 21 has been amended, and as amended recites an apparatus
16 comprising [added language appears in the bold italics]:

- 17
- 18 • at least one authentication mechanism configured to generate at least
19 one indicator that identifies the authentication mechanism *that has*
20 *been used to authenticate a user;*
- 21 • an access control list;
- 22 • at least one access controlled resource; and
- 23 • logic operatively configured to compare the indicator with the access
24 control list and selectively control access to the resource based on
25 the indicator.

23 In making the rejection, the Office argues that Hillhouse discloses at least
24 one authentication mechanism configured to generate at least one indicator that
25

1 identifies the authentication mechanism (column 8, lines 27-43) and logic
2 operatively configured to compare the indicator with the access control list and
3 selectively control access to the resource based on the indicator. (citing 7, lines 1-
4 26).

5 Applicant respectfully disagrees and submits that, as discussed above and
6 in light of the current amendments, the excerpt cited by the Office (column 8) does
7 not disclose or suggest controlling access to a resource based on an indicator that
8 identifies an authentication mechanism *that has been used to authenticate a user*.

9 The excerpt cited by the Office neither discloses nor suggests any such
10 subject matter. Accordingly, for at least this reason, this claim is allowable.

11 Claims 22-26 depend from claim 21 and are allowable as depending from
12 an allowable base claim. These claims are also allowable for their own recited
13 features which, in combination with those recited in claim 21, are neither shown
14 nor suggested by the reference of record.

Conclusion

All of the claims are in condition for allowance. Accordingly, Applicant requests a Notice of Allowability be issued forthwith. If the Office's next anticipated action is to be anything other than issuance of a Notice of Allowability, Applicant respectfully requests a telephone call for the purpose of scheduling an interview.

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Respectfully Submitted,

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